Claims

What is claimed is:

1. A circuit board comprising:

a plurality of pads for mounting a semiconductor device with bumps; and

a plurality of wires drawn from the respective pads;

wherein the circuit board has a region where pitch in a longitudinal direction and a lateral direction of the plurality of pads are different from each other and the plurality of wires are drawn from a wider pitch side of the longitudinal direction and the lateral direction of the pads.

2. The circuit board according to Claim 1, wherein a ratio P1/P2 is set within a range of 1.01 to 3 where P1 is a wider pitch of the pads and P2 is a narrower pitch.

3. The circuit board according to Claim 1, wherein a wider pitch of the pads is set within a range of 0.4 to 2.0 mm and a narrower pitch is set to a value smaller than that of the wider pitch.

4. The circuit board according to Claim 1, wherein an aspect ratio of the pad is determined in proportion to the pitch of the longitudinal direction of the pads and the pitch of the lateral direction of the pads.

5. The circuit board according to Claim 1, wherein the region where the pitch in the longitudinal direction and the lateral direction of the pads are different from each other comprises a center of a surface of the semiconductor device.

6. The circuit board according to Claim 1, wherein the region where the pitch in the longitudinal direction and the lateral direction of the pads are different from each other comprises a periphery of a surface of the semiconductor device.

7. The circuit board according to Claim 1, wherein the region where the pitch in the longitudinal direction and the lateral direction of the pads are different from each other comprises a block structure, and the wires of the pads are drawn through spaces between the blocks.

8. The circuit board according to Claim 1, wherein the semiconductor device comprises a ball grid array.

9. A mounting structure comprising:

a semiconductor device with bumps mounted to a circuit board through a solder material applied on pads;

the circuit board having a region where pitch in a longitudinal direction and a lateral direction of the pads are different from each other;

wherein the plurality of wires are drawn from a wider pitch side of the longitudinal direction or the lateral direction of the pads.

10. The mounting structure for a semiconductor device with bumps according to Claim 9, wherein part of the solder material is adhered to the pads of the semiconductor device with bumps.

11. The mounting structure for a semiconductor device with bumps according to Claim 9, wherein an under filling having the following properties fills an area between the semiconductor device with bumps and the circuit board:

1) Volume resistance within the range of 1×10^6 to 1×10^{20} Ω·cm;
2) Tensile strength within the range of 1 to 200 MPa; and
3) Elongation within the range of 10 to 500 %.

12. An electro-optic device comprising:

a semiconductor device mounted on a circuit board having a region where pitch in a longitudinal direction and a lateral direction of the pads are different from each other as one of a driving element and a power-supply element;

wherein wires are drawn from a wider pitch side of the longitudinal direction or the lateral direction of the pads.

13. An electronic device comprising the electro-optic device according to Claim 12 and control means for controlling the electro-optic device.